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**Berglund et al.**

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(54) **PROTECTIVE CLOTHING ENSEMBLE WITH TWO-STAGE EVAPORATIVE COOLING**

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(52) **U.S. Cl.**  
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(58) **Field of Classification Search**  
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See application file for complete search history.

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(57) **ABSTRACT**

A hazardous materials protective garment may use a two-stage evaporative cooling process to ease heat strain on the wearer of the garment. The garment may include an impermeable inner layer and a wicking outer layer. One or more reservoirs may be disposed interior to the inner layer for collecting condensed and/or unevaporated sweat. One or more pumps may move the sweat to the exterior of the impermeable layer for distribution in the wicking layer and evaporation from the garment.

**32 Claims, 9 Drawing Sheets**

